USACE Economic and Environmental Analysis Conference Baltimore, MD April 2004

US Army Corps of Engineers

Ecosystem Benefits Analysis Session

Case Studies - Historical Perspective

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Case Studies - Historical Perspective

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Development of Corps Restoration Expertise

- Dredge Material Disposal
- Project Mitigation
- Natural Resources Stewardship
- WRDA 1986 – Section 1135
- LTG Hatch Memo – February 14, 1990
- Secretary Page Memo – June 26, 1990
- Authority in WRDA 1990 – Section 306

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"Restoration" Project Purpose

- WRDA 1996 2 projects
- WRDA 1999 12 projects
- WRDA 2000 7 projects
- Total Estimated Construction Cost of About $620 Million

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This Restoration Population Does NOT Include

- Everglades (CERP)
- Kissimmee River
- CWPPRA
- UMRS-EMP
- Columbia River Mitigation
- Continuing Authorities WRDA 1986 – Section 1135

Authorized Ecosystem Restoration Projects WRDAs 1996, 1999 and 2000
21 Authorized Projects

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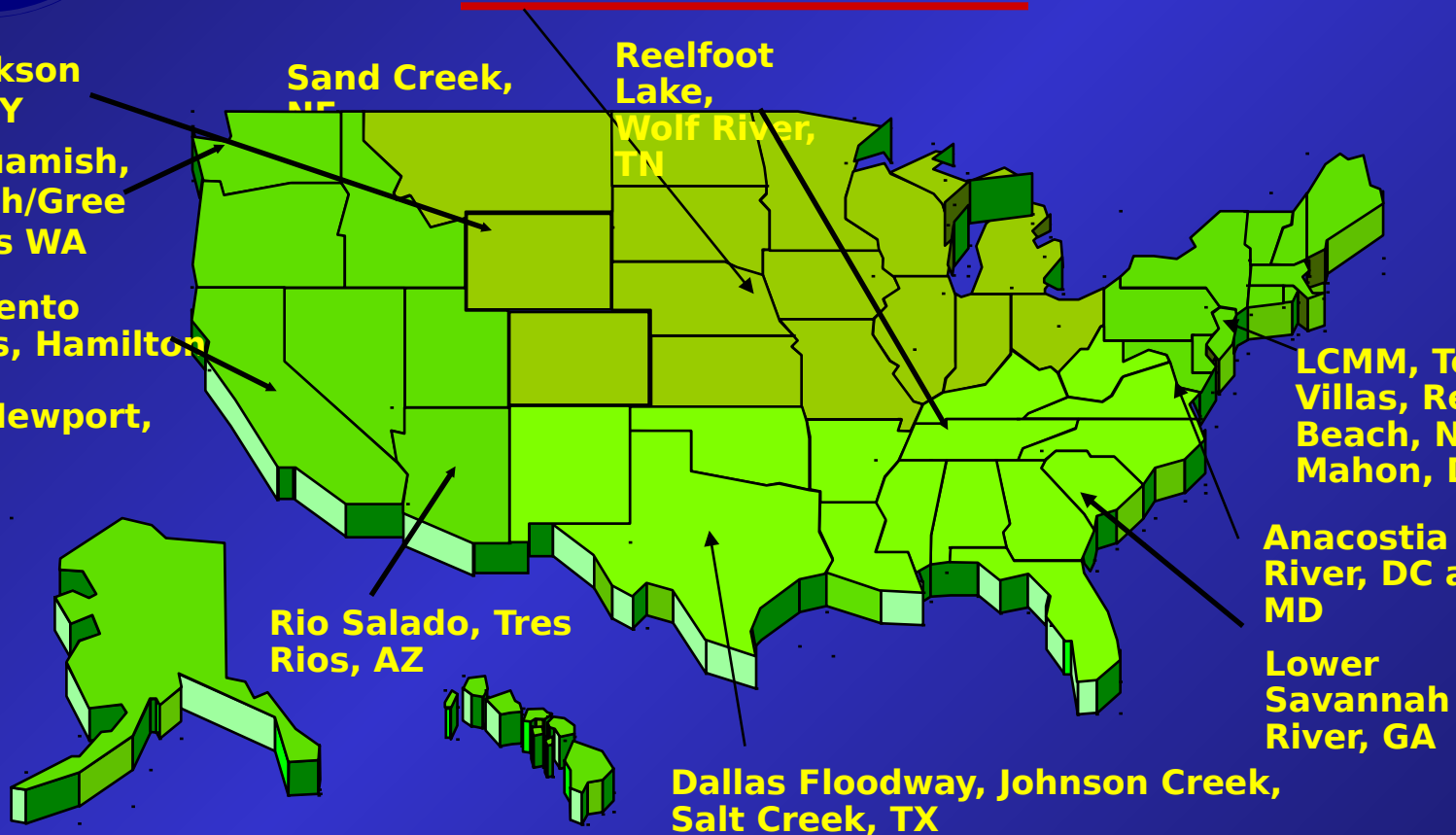
Jackson , WY
Sand Creek, NE
Reelfoot Lake, Wolf River, TN
Stillaguamish, Duamish/Green Rivers WA
Sacramento Streams, Hamilton AAF, Upper Newport, CA
LCMM, Townsend, Villas, Reeds Beach, NJ & Port Mahon, DE
Anacostia River, DC and MD
Rio Salado, Tres Rios, AZ
Lower Savannah River, GA
Dallas Floodway, Johnson Creek, Salt Creek, TX

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- Cost Data Normalized to Constant Price Level (FY02)
- Data Collected from
  - Chief's Reports
  - HQUSACE Project Summaries
  - Occasional Project Report
- Some Data were Massaged/Manipulated/Synthesized to improve data comparability, e.g.,
  - River miles to acres
  - O&M Consideration

First Cost Per Acre
Range < 1K to > 250 K

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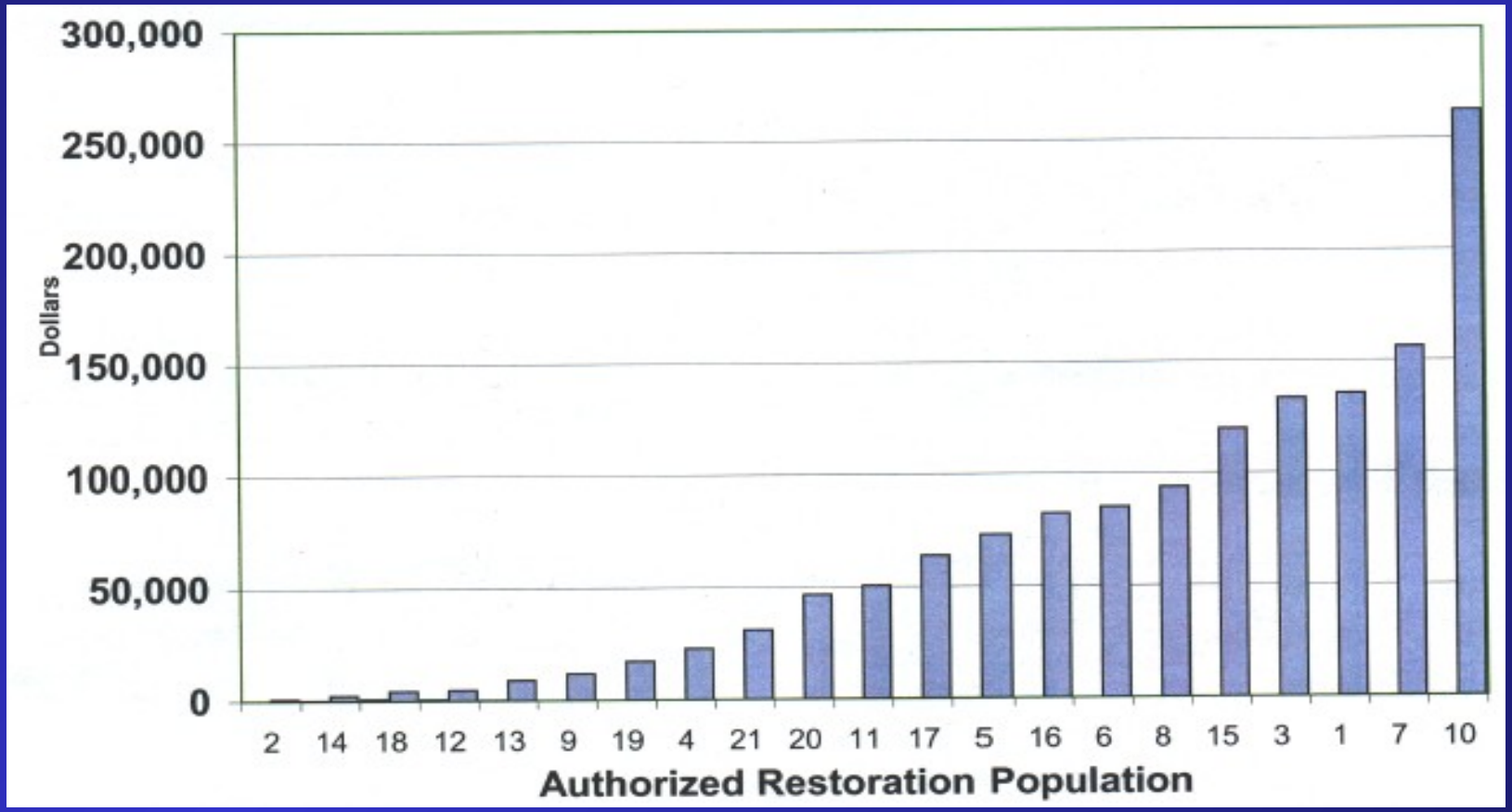

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Benefit Evaluation Issues

- All Project Outputs (Acres) Are Equal.
- No measurement of scarcity or significance.

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Conclusions

- Benefit "Area of Effect" Varies between Projects
- No accounting for Intangibles, i.e. Connectivity, Associated Efforts
- Dams, Dredges and Deserts (with Associated Complex Engineering Challenges) are Expensive
- Investment Decisions Across Habitat Types

Could Benefit From Better Tools